

Water and Australia's Foreign Policy

Submission to the Australian Government's Foreign Policy White Paper

A Submission prepared for the Australian Department of Foreign Affairs and Trade

Tuesday 28 February 2017

A I T H E R

Water and Australia's national interests

Key messages:

- Economies and ecosystems across large areas of the planet are threatened by water scarcity.
- Water has long been a feature shaping Australia's foreign policy and the opportunity to be a leader of improved water resource management has never been more apparent.

By better managing available water resources, decision makers can enable economic growth, improve environmental sustainability, and enhance peace and security. Through its contributions to improved water management beyond its borders, Australia can grow its water-related exports and water-dependent imports, promote peace in its immediate neighbourhood, and gain recognition as a world leader in water policy and management.

Many aspects of water resource management, from water pollution to flooding, affect Australia's national interests through their impacts on our strategic allies, trading partners, and neighbouring countries. But few water-related phenomena are as pervasive and malicious in their impacts as water scarcity and drought.

Economies and ecosystems across large areas of the planet are now threatened by water shortages, with the world's river basins and aquifers increasingly fully or over-allocated. More than 50 per cent of the world's cities and 75 per cent of irrigated farms are experiencing water shortages on a recurring basis, jeopardising world food supplies, access to water and sanitation, and economic development.

If left unchecked, water scarcity will worsen, with global population growth, increased water usage and climate change compounding the issue. The World Economic Forum has ranked 'water crises' as one of the top five global risks in terms of impact for the last six consecutive years.

Over recent decades, Australia has faced its own water scarcity challenges and has responded by developing world-leading practices to better account for, allocate and use water. While domestic challenges remain, the potential impacts of water shortages beyond Australia's borders demand attention. Mass dislocation of people, increased conflict, reduced health and well-being, economic stagnation and environmental devastation are just some of the impacts of water scarcity and drought.

Water has long been a feature shaping Australia's foreign policy. *Advancing the National Interest* (2003) listed water stress as a key transnational challenge and highlighted water scarcity as a threat to the security, prosperity and sovereignty of nations. Over a decade later, these threats remain and, in most cases, have increased. Australia's opportunity to assert itself as a leader of improved water resource management has never been more apparent.

Australia is in a privileged position as both a benefactor and proprietor of leading water resource management practices

Australia is in a privileged position as both a benefactor and proprietor of leading water resource management practices and we have the opportunity to be a leading force for good in addressing one of the grand challenges of the 21st century.

We have a competitive advantage across the value chain and can point to an efficient and effective water sector, from regulatory and policy settings, to ownership and institutional structures, to private participation and drivers of innovation. Aither believes Australia can do more to leverage our water resource management credentials and strengthen approaches to managing water scarcity in developing and developed countries alike.

Australian leadership in water management

Key messages:

- Australia is well-positioned to contribute to global efforts to enhance water resource management, thus improving international relations and reducing impacts of water scarcity such as conflict, instability and dislocation of people.
- At the same time, Australia could significantly diversify its trading relationships through an expanded focus on water-related goods and services.
- Australia should seek to do more under its existing water-related bilateral Memoranda of Understanding and its position on the United Nations/World Bank High Level Panel on Water to promote the capabilities of its public and private sectors in improving water resource management.
- Australia should leverage its own water policy skills and experience to develop Australian-led frameworks for understanding trade-offs in water resource management, communicating the benefits of a value-based approach to water allocation and management, and setting roadmaps for long-term sustainable water planning.

Australia and the international water sector

The Australian Government, and Australian citizens, are active members of the international water resource management community. We are engaged in activities ranging from development assistance programs to bilateral agreements and partnerships involving academic institutions and NGOs. We have Memoranda of Understanding (MoUs) on water with China, India, and the United States of America, and are negotiating one with Indonesia. Other bilateral MoUs also include agreements to actively partner on responses to water resource management issues.

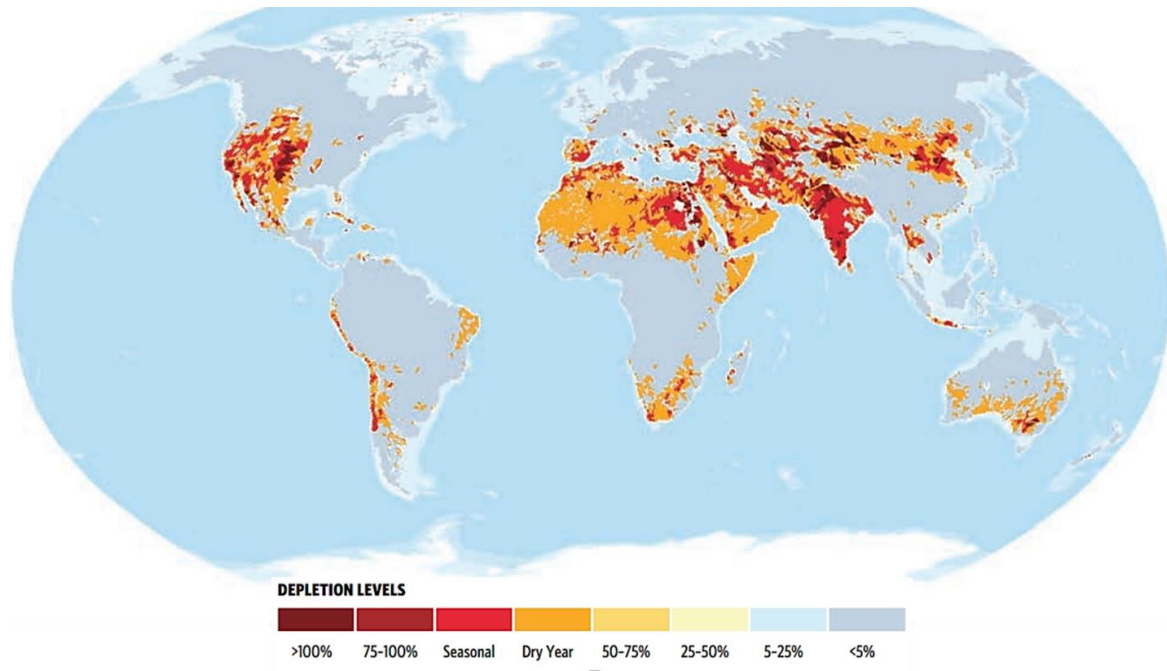
Australia's appointment to the High Level Panel on Water (HLPW), co-convened by the United Nations and World Bank, demonstrates our recognised status as a leader in the sector, and provides a platform from which to do even more. The HLPW consists of 11 sitting Heads of State and Government and one Special Adviser, and has been convened to provide the leadership required to champion a comprehensive, inclusive and collaborative way of developing and managing water resources, and improving water and sanitation related services. The core focus of the Panel is to further Sustainable Development Goal (SDG) 6 – *Ensure availability and sustainable management of water and sanitation for all*.

In addition to its role on the HLPW, Australia recently established the Australian Water Partnership (AWP) to support public and private partnerships for sharing Australia's water sector expertise in the Indo-Pacific region. The Australian Government's investment in AWP is expected to continue over coming years and provides an opportunity to showcase Australian expertise and leadership in responding to regional water resource management challenges.

Australia's geographic position and existing trade relationships further underline the importance of collaboratively managing water scarcity in our near neighbourhood. Figure 1 shows that water scarcity is affecting vast areas of

Australia's top ten two-way trading partners include the biggest markets for water related goods and services in the world, as well as some of countries most exposed to water risk.

the world, with large areas of West, Central, South and East Asia, including the world's most populous countries, China and India, particularly water-stressed.

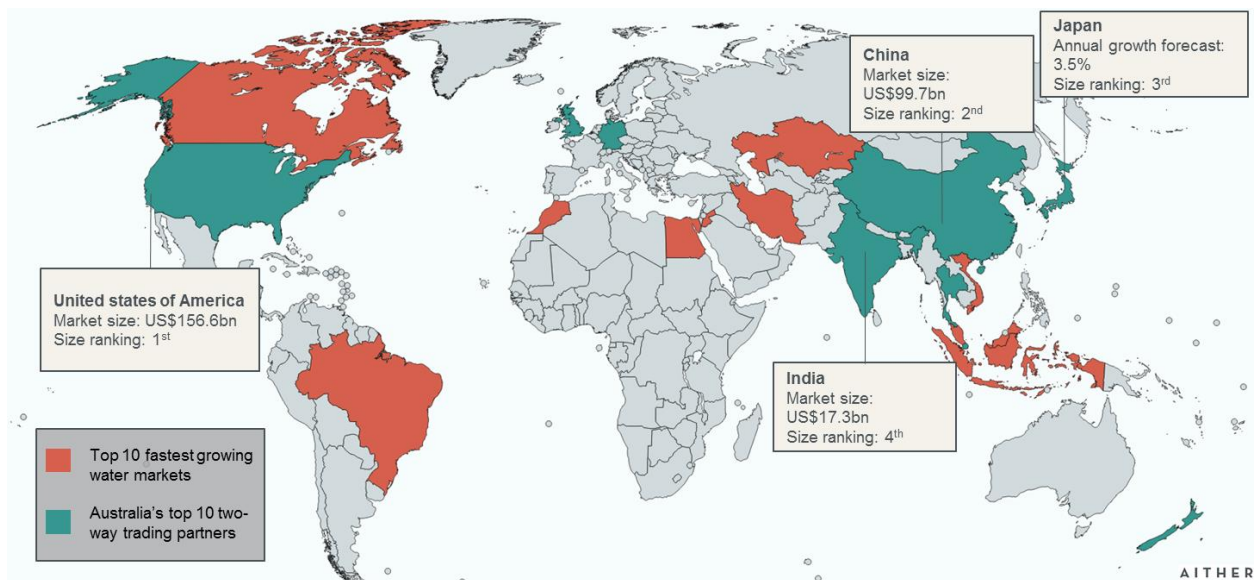


Source: Richter, 2016

Notes: This map highlights basins where the renewable replenishment of water is being depleted by more than 75 per cent on a regular, annually averaged basis (75-100 per cent or >100 per cent), seasonally, or during dry years.

Figure 1 Global water scarcity

Figure 2 shows Australia's top ten trading partners and information on global water markets. Australia's top ten two-way trading partners include the biggest markets for water related goods and services, as well as some of the countries most exposed to water risk.



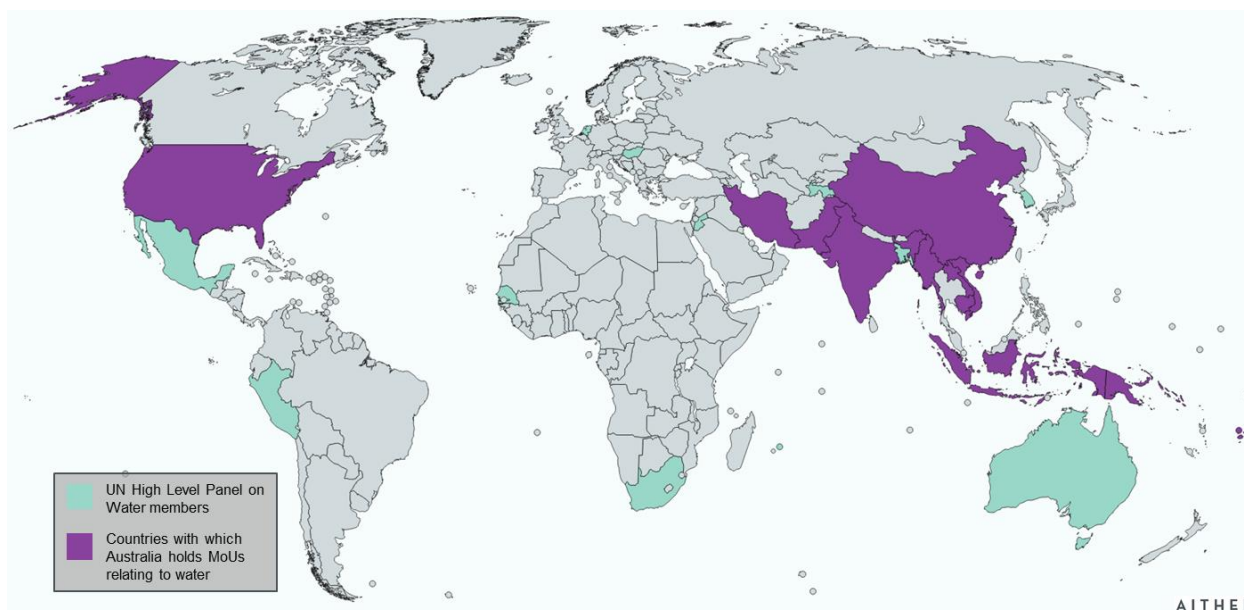
Source: DFAT, 2017; and Global Water Intelligence, 2016, map generated by Aither

Notes: Top 10 fastest growing markets are limited to the top 40 largest water markets (in 2016) where total water sector spend is predicted to grow at >10 per cent CAGR between 2016 and 2020. India is both one of Australia's top 10 two-way trading partners and one of the fastest growing water markets in the world.

Figure 2 Australian trade and global markets for water-related goods and services

There is an opportunity for Australia to both consolidate and expand water trade with our major trade partners, as well as improving stability and security in our region through providing leading policy, regulatory, institutional and technological responses to scarcity. Countries shown in red highlight the fastest growing water markets. Australia should actively pursue water sector opportunities in these countries through public and private sector collaboration.

Finally, Figure 3 shows that Australia is well-placed to enter into partnerships with key countries in its near neighbourhood facing water management challenges. Existing water-related MoUs and Australia’s membership on the HLPW offer promising avenues for deeper and stronger collaboration with an ongoing focus on the Asia-Pacific or Indo-Pacific region.



Source: Based on DFAT, 2017; and UN, 2016, map generated by Aither

Notes: This map shows countries with which the Australian Government holds active or under-negotiation MoUs relating at least in part to water resource management. The list may not be exhaustive – some small island states are not shown.

Figure 3 Avenues for Australian engagement in the global water sector

Defining Australia’s purpose and role in international water policy

A key feature of Australia’s foreign policy should be to consolidate and extend our role as a steward of sustainable water resource management. Through Australia’s own experience of drought in recent decades, we have seen the benefits of better accounting for and valuing water and have the invaluable position of a globally leading brand in the sector. We now have an opportunity to leverage

that experience in promoting improved water resource management internationally.

We have seen the benefits of better accounting for and valuing water; we now have an opportunity to leverage that experience in promoting improved water resource management internationally.

In basic terms, the value of water is the full range of benefits people receive from water. When decisions are made without consideration of the value of water, it means that the full benefits and costs are not taken into account. The

Australia in the Asian Century White Paper (2012) touched on this when it noted ‘We recognise the need to form energy, food and water security policies and tackle climate change in a holistic and integrated manner... The immediate priority will be to support efforts to better understand the connections and trade-offs. Basic metrics for these critical relationships are needed to inform policy’.

The benefits from taking action will be significant: the World Bank calculates that the negative effects of water scarcity on the economies of East, South and Central Asia in 2050 could be comprehensively reversed through the adoption of efficient water policies (World Bank, 2016).

Valuing water has been a central principle of water sector reform in Australia for some time, from cost-reflective pricing for water services, to the establishment of secure water entitlements and robust water markets in the Murray-Darling Basin. This common thread has led to Australia implementing best-practice reforms and establishing leading water resource management regimes. Australia can play a major role in improving water management outcomes by:

- Seeking to articulate and characterise our approach to water policy based on valuing water, and applying this approach to our development and aid programs, as well as to commercial or strategic opportunities and partnerships.
- Integrating water policy considerations and the value of water into related portfolios and initiatives, such as agriculture, energy, aid and climate change adaptation.
- Building relationships with key countries facing challenges from water scarcity, including under existing MoUs to promote cooperation and identification of issues and opportunities.

An example of an area of water policy where Australia could better expand on its own experiences in providing support and advice to other countries, is water markets and trading. Australia's Murray-Darling Basin is the leading international example of the benefits of water markets for balancing competing demands for scarce water resources, growing the value of agriculture, securing supplies for cities and towns, and providing water for the environment. The development and operation of water markets in Australia is the test case of water policy innovation, representing the single most important step change in water management seen in the last century.

While Australia's brand of water resource management is well respected internationally, we can do more to extend the benefits of valuing water and water markets to other countries facing similar challenges. Australia's membership of the HLPW, its existing water-

The development and operation of water markets in Australia is the test case of water policy innovation, representing the single most important step change in water management seen in the last century.

related MoUs, and the growing interest in water markets among foreign governments and even large environmental NGOs, means that the time is ripe to contribute to improved global water management through the development and continual improvement of water entitlements and markets outside Australia.

Aither recommends the development of Australian-led frameworks for working with countries to understand trade-offs in water resource management, communicate the benefits of a value-based approach to water allocation and management, and set roadmaps for long-term sustainable water planning. Aither has already contributed to these efforts by partnering with DFAT to develop WaterGuide.

Australian exports of water-related products and services

Key messages:

- Australia is not yet perceived as a member of the ‘water industry export elite’ and should shape a coordinated approach to water sector export promotion.
- We should refine our national branding by building on our water reform journey and our ‘value-based’ approach to water management. Articulating our essential value proposition and applicability to other countries sits at the core of successfully marketing Australia’s innovative water sector offering.
- Australia should target its water sector expertise toward countries where it will best be able to generate cascading economic, trade, environmental and security benefits through an export-driven effort to promote good water resource management in the region.

Australia’s leading water sector services and products

The international water market is substantial, with the global urban and industrial water sector estimated at US\$714 billion in 2016 and expected to exceed US\$1 trillion by 2025 (Global Water Intelligence, 2016). Australia currently accounts for only a very small proportion of this market, but is home to a number of market leading businesses and service providers.

The global urban and industrial water market is expected to exceed US\$1 trillion by 2025

Global Water Initiative, 2016

Australia’s experience of water policy and regulatory reform from the mid-1980s to the present, significantly accelerated by the necessity to innovate in the face of severe drought conditions, has created positive conditions for technological, management and

institutional innovation. Successful examples include Hydronumerics, a growing consultancy providing innovative engineering services in China and India; Rubicon Water, world leader in gravity fed irrigation networks, and government owned not-for-profit eWater, the developer of Australia’s national hydrological modelling platform eWater Source.

Our technologies, services and products are often applicable outside Australia, and can play an important role in mitigating water scarcity in the Asia-Pacific region and beyond.

As many countries around the world face pressing water shortages due to population growth, urbanisation and climate change impacts, our expertise will present an attractive opportunity for them to import technologies and services to meet the challenges ahead.

Positioning Australia as a water sector exporter

Federal regulations, policies and initiatives influence the water industry operating environment by providing the overarching settings for Australian business engagements with international markets. DFAT is the lead agency responsible for managing Australia’s presence; it develops and implements Australia’s foreign, trade and development policy, negotiates international agreements and deliver’s

Australia's aid program. All three of these responsibilities shape opportunities for water industry exporters.

A key consideration for Australia's approach to the international water sector should be to foster and support exports and trade relationships through these channels. At present Australia is not regarded as a part of the 'water industry export elite' with the strongest (perceived) performers including Israel and the USA followed by the Netherlands and Singapore (Amane Advisors, 2015). To unlock export opportunities and grow our market share there a few key steps that Australia should take to better position itself. Based on the approaches of other successful examples (including Singapore, Israel and the USA), and our expertise domestically, Australia should:

A key consideration for Australia's approach to the international water sector should be to foster and support exports and trade relationships.

- Consolidate and refine our national branding based on a common narrative that builds on our water reform journey and our 'value-based' approach to water management, something which the creation of AWP presents a vehicle for addressing. Articulating our essential value proposition and applicability to other countries sits at the core of successfully marketing Australia's innovative water sector offering and will enable continuity and consistency in the messaging and promotion of trade prospects.
- Focus and sharpen government representation and engagement in selling the export opportunities to our trade partners, given government's important role in the water reform journey and the development of improved approaches to managing water resources.
- Springboard off existing in-market support resources (e.g. Austrade country representatives) and build new strategic relationships with key trade partners and water sector organisations.
- Adopt a collaborative approach domestically to developing, refining and then exporting services and products. There is a role for academic institutions, government, and the private sector to generate leading thinking and innovative solutions, access funding and private capital, and target export markets.

About Aither:

Improving economic, community and environmental outcomes from scarce water resources requires better decisions about water management, infrastructure and investment.

Valuing water improves decision making. Valuing water enables decision makers to weigh and communicate the trade-offs between different choices, providing the information required to better manage, use and invest in water.

Ultimately we empower our public, private and not-for-profit clients to contribute to improved economic, social and environmental outcomes by ensuring decision making reflects the value of scarce water resources and competing uses.

With an expert team of water economists, strategists, and policy and performance advisers, Aither provides the best available water sector advice.

Find us at: www.aither.com.au

References

Amane Advisors, 2015, Where are the hot markets for innovation in the water industry? Viewed 28 February 2017 <<http://www.amaneadvisors.com/insights/#popin>>

DFAT, 2017, Australia's trade in goods and services 2015-16, Canberra, Australia, viewed 28 February 2016 <<http://dfat.gov.au/about-us/publications/trade-investment/australias-trade-in-goods-and-services/Pages/australias-trade-in-goods-and-services-2015-16.aspx>>

Global Water Intelligence (GWI) 2016, Global Water Market 2017, Global Water Intelligence, Oxford.

Richter, B., 2016. Water Share: Using water markets and impact investment to drive sustainability (Report). The Nature Conservancy, Washington DC.

UN, 2016, High Level Panel on Water, viewed 28 February 2017 <<https://sustainabledevelopment.un.org/HLPWater>>

World Bank, 2016. High and Dry: Climate Change, Water, and the Economy (Report). World Bank, Washington DC.

Document history

Revision:

Revision no.	1
Author/s	Joseph Lorimer, Huw Pohlner
Checked	Huw Pohlner
Approved	Will Fargher

Distribution:

Issue date	Tuesday 28 February 2017
Issued to	Department of Foreign Affairs and Trade
Description	Submission to Foreign Policy White Paper

Citation:

Aither 2017, *Water and Australia's Foreign Policy: Submission to the Australian Government's Foreign Policy White Paper*, Aither Pty Ltd.

For information on this report:

Please contact: Huw Pohlner
Mobile: 0432 652 756
Email: huw.pohlner@aither.com.au

© 2017 Aither Pty Ltd. All rights reserved.

This document has been prepared on the basis of information available to Aither Pty Ltd at the date of publication. Aither Pty Ltd makes no warranties, expressed or implied, in relation to any information contained in this document. This document does not purport to represent commercial, financial or legal advice, and should not be relied upon as such. Aither Pty Ltd does not accept responsibility or liability for any loss, damage, cost or expense incurred or arising by reason of any party using or relying on information provided in this document. Any party that uses information contained in this document for any purpose does so at its own risk.

A I T H E R